

Amendments to the Claims:

Please amend the claims as indicated.

1. (Currently Amended) An apparatus for rapidly, deterministically transferring data, the apparatus comprising:

a processor ~~configured to processing~~ data;

a volatile memory ~~configured to storing~~ the data;

a boot control module ~~configured to booting~~ the processor with a standard operating kernel under a normal operating condition and ~~to deterministically terminating all existing processes and the standard operating kernel by rebooting~~ the processor with a data transfer kernel ~~underin response to~~ an abnormal operating condition that threatens a loss of the data in the volatile memory, wherein the reboot occurs without a loss of the data within the volatile memory; and

the data transfer kernel ~~configured to exclusively supporting~~ a data save operation ~~configured to savinge the data in the volatile memory to a storage device and shutting down the processor in response to completing the data save operation.~~

2. (Canceled)

3. (Previously Amended) The apparatus of claim 1, wherein the data save operation is selected from the group consisting of a storage configuration operation, a transfer process loading operation, a data transfer operation, and a system shutdown operation.

4. (Canceled)

5. (Previously Amended) The apparatus of claim 1, further comprising a memory module comprising data bits for marking data to be saved during the data save operation.

6. (Currently Amended) The apparatus of claim 5, ~~wherein~~ the standard operating kernel is further ~~configured to marking~~ configured to marking data to be saved during a data save operation.

7. (Currently Amended) The apparatus of claim 1, ~~wherein~~ the data transfer kernel is ~~configured to configuring~~ configured to configuring the storage device for specialized data save operations.

8. (Currently Amended) The apparatus of claim 1, ~~wherein~~ the data transfer kernel is ~~configured to conducting~~ configured to conducting a power down procedure.

9. (Canceled)

10. (Currently Amended) An apparatus for rapidly, deterministically transferring data to a storage device, the apparatus comprising:

a storage device ~~configured to non-volatilely storing~~ configured to non-volatilely storing data;

a data transfer kernel ~~configured to supporting~~ configured to supporting data saving operations; and

a computer in communication with the storage device, the computer ~~configured to deterministically terminating all existing processes by loading~~ configured to deterministically terminating all existing processes by loading the data transfer kernel during a reboot procedure in response to an abnormal operating condition that threatens the loss of data in a volatile memory, wherein the reboot procedure occurs without a loss of the data in the volatile memory; and

the data transfer kernel ~~exclusively configured to supporting a data save operation configured to saving the data in the volatile memory to the storage device and shutting down the computer in response to completing the data save operation.~~

11. (Currently Amended) The apparatus of claim 10, ~~wherein the data transfer kernel is configured to exclusively supporting devices and processes required to save data to the storage device.~~

12. (Canceled)

13. (Currently Amended) An apparatus for rapidly, deterministically saving data, the apparatus comprising:

means for ~~processing data~~ saving data in a non-volatile memory;

means for ~~volatily storing the data~~ detecting a data save condition comprising an abnormal operating condition that threatens the loss of data in a volatile memory; and

means for booting the processing means with a standard operating kernel under a normal condition and deterministically terminating all existing processes by rebooting the processing means ~~processor~~ with a data transfer kernel without a loss of data in the volatile memory in response to the abnormal operating condition, the data transfer kernel exclusively supporting a data save operation configured to saving the data to a non-volatile storage and shutting down the processing means in response to completing the data save operation ~~the means for saving data.~~

14. (Currently Amended) The apparatus of claim 13, further comprising means for configuring the non-volatile storage ~~means for saving data~~ for data save operations.

15. (Canceled)

16. (Currently Amended) The apparatus of claim 13, further comprising means for marking the data to be saved during the data save operation.

17. (Currently Amended) A system for rapidly, deterministically saving data to a storage device, the system comprising:

a processor ~~configured to processing~~ ing data;

a memory ~~volatitlely storing~~ configured to provide volatile storage for the data;

a storage device ~~non-volatitlely storing~~ configured to provide non-volatile storage for the data; and

a boot control module ~~configured to booting~~ the processor module with a standard operating kernel under a normal operating condition and ~~deterministically terminating all existing processes and the standard operating kernel by re-booting~~ the processor with a data transfer kernel in response to ~~under~~ an abnormal operating condition that threatens the loss of the data in the memory, wherein the reboot occurs without a loss of the data in the memory; and

the data transfer kernel ~~exclusively configured to supporting~~ a data save operation ~~configured to saving~~ the data in the memory to the storage device and shutting down the processor module in response to completing the data save operation.

18. (Currently Amended) The system of claim 17, ~~wherein~~ the standard operating kernel is ~~configured to marking~~ the data in the memory to be saved by the data transfer kernel during the data save operation.

19. (Previously Amended) The system of claim 17, wherein the data transfer kernel exclusively supports devices, operations, and processes required to save data.

20. (Original) The system of claim 17, wherein the data transfer kernel configures the processor for data saving operations.

21. (Original) The system of claim 17, wherein the data transfer kernel configures the storage device for specialized data saving operations,

22. (Currently Amended) The system of claim 17, ~~wherein the data transfer kernel is configured to conducting~~ a power down procedure.

23. (Canceled)

24. (Currently Amended) A method for rapidly, deterministically saving data, the method comprising:

detecting a data save condition that threatens the loss of data in a volatile memory;

and

deterministically terminating all existing processes by rebooting a processor module with a data transfer kernel ~~exclusively configured to supporting~~ a data save operation configured to saving the data in the volatile memory to a non-volatile storage device, wherein rebooting the processor module occurs without a loss of the data in the volatile memory;

saving the data in the volatile memory to the non-volatile storage device;- and
shutting down the processor in response to completing the data save operation.

25. (Currently Amended) The method of claim 24, ~~the data transfer kernel~~ further comprising exclusively supporting devices, operations, and conducting processes required to save the data to ~~thea non-volatile~~ storage device.

26. (Currently Amended) The method of claim 24, further comprising configuring the non-volatile storage device to receive the data.

27. (Currently Amended) The method of claim 24, further comprising marking the data to be saved by the data transfer kernel.

28. (Currently Amended) A computer readable storage medium ~~storing~~ comprising a computer readable program code for rapidly, deterministically saving data, the program code ~~configured to:~~
deterministically terminates all existing processes by booting a processor module with a data transfer kernel exclusively configured to supporting a data save operation ~~and~~ in response to an abnormal operating condition that threatens the loss of data stored in a volatile memory module ~~comprising volatile memory; and~~
transfers the data with the data save operation from the memory module to a non-volatile storage device without a loss of data in the memory module;
shuts down the processor module in response to completing the data save operation;

29. (Currently Amended) The computer readable storage medium of claim 28, ~~wherein the~~ computer readable code is ~~further configured to marking~~ data in the memory module to be saved to the storage device.

30. (Currently Amended) The computer readable storage medium of claim 28, wherein the data transfer kernel~~computer-readable code is further configured to~~ exclusively supports devices, operations, and processes required to save data to the storage device.